Integrating the HDF CVMFS Repository & AAI.

Enabling remote login for repository maintainers

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HDF Technical Meeting

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How to get remote maintainers to their repo?

Opening the CVMFS Repository for outside maintainers

- what is `CVMFS`
  - infrastructure for large-scale software distribution
  - easy, caching/buffered distribution of primarily static files
  - on clients locally dynamically loaded under `/cvmfs/hdf.desy.de`

- repository at `hdf-cvmfs.desy.de` to manage content
  - repository maintainers login to `hdf-cvmfs.desy.de` via `ssh`
    1. maintainers add/remove files
    2. mainatiners commit & push changes to all clients

- Problem: repository maintainers do not have necessarily a DESY-account

→ Solution: attach HDF CVMFS repository to the HDF AAI

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Feudal ssh key client

Attaching CVMFS Repo to the AAI

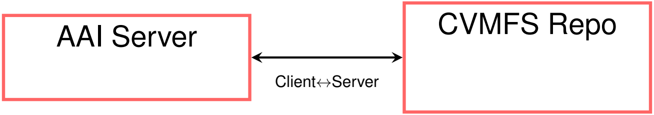
- wrote client script in `Python`
- dedicated local UID:GID for the maintainers
- deployed as `systemd` unit/service bound the local maintainer account
- retrieves status changes from `Feudal` client as `JSON`
- on Feudal status changes
  - accredited user asks Feudal server to gain access to the repo
  - feudal Server at KIT pushes message to the client
  - client retrieves ssh public key to deploy
  - clients adds public key to the local user authorized keys
  - user can ssh with his/her private key to the repo node
  - afterwards the deployed key can be dropped again

AAI ssh key Distribution

AAI Server

CVMFS Repo

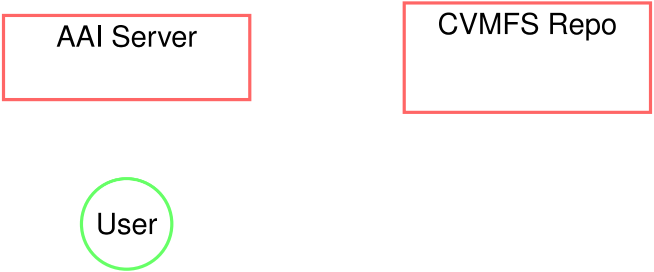
AAI ssh key Distribution


AAI Server

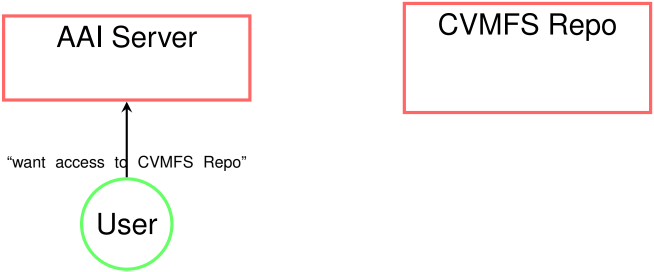
CVMFS Repo

Client↔Server

AAI ssh key Distribution



AAI ssh key Distribution



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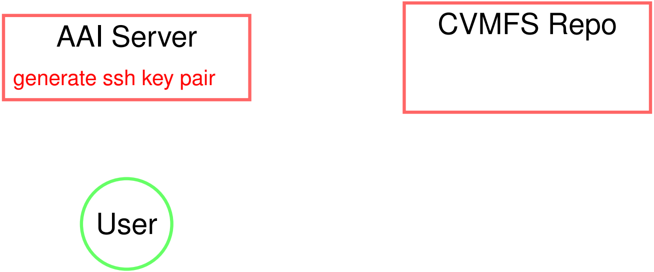


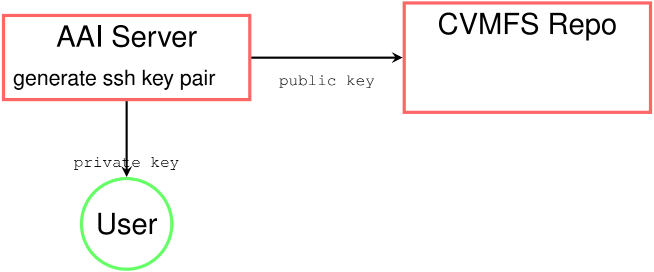
AAI Server

generate ssh key pair

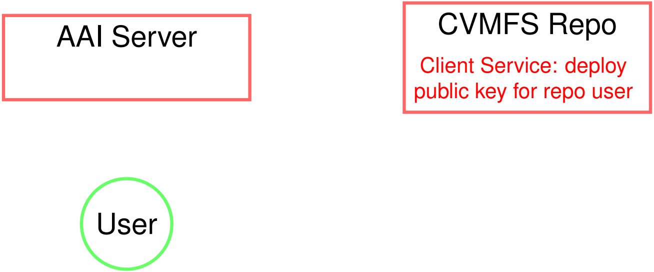
CVMFS Repo

User

AAI ssh key Distribution



AAI ssh key Distribution



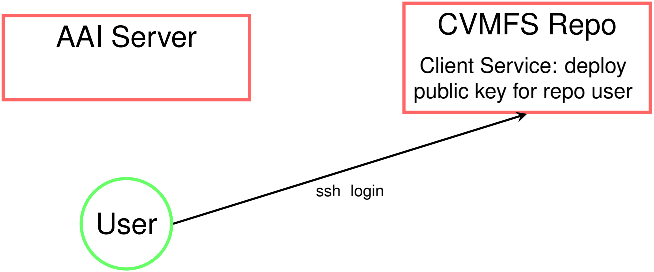
AAI Server

CVMFS Repo

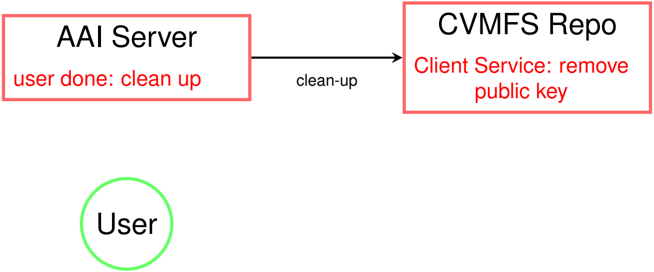
Client Service: deploy public key for repo user

User

AAI ssh key Distribution



AAI ssh key Distribution



AAI Server

user done: clean up

clean-up

CVMFS Repo

Client Service: remove public key

User

Demo

Now: Live demo...

fingers crossed